APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,268	10/17/2001	Peter W. Wenzel	14485RRUS01U	6371

7590   02/17/2009

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EXAMINER
DANIEL JR, WILLIE J

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
02/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/981,268	WENZEL ET AL.
	Examiner	Art Unit	
	WILLIE J. DANIEL JR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 February 2009</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-23</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-23</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 09 February 2009. **Claims 1-23**

    are now pending in the present application. The BPAI decision has affirmed prior rejection

    of claims 1-23. This office action is made **Non-Final**.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114 was filed in this application

    after a decision by the Board of Patent Appeals and Interferences, but before the filing of a

    Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a

    civil action. Since this application is eligible for continued examination under 37 CFR 1.114

    and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn

    pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to

    37 CFR 1.114. Applicant's submission filed on 09 February 2009 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

    rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1, 7-9, 15, and **21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ton (US 2002/0067704 A1) in view of **Perkins ("IP Mobility Support")**.

Regarding **claim 1**, Ton discloses a method for registering a subscriber unit with a home agent in a cellular system (see pg. 2, [0019]; Figs. 2-5), where a cellular system incorporating data communications packet switched networks and that deploys several home agents and a subscriber unit or mobile node, the method comprising:

storing addresses for a plurality of home agents in the subscriber unit prior to a first registration attempt (see pgs. 2-3, [0023, 0028]; pg. 5, [0060-0062]), wherein the cellular system/network provides a list of home agents attached to a mobile IP reply message (Mobile IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit stores said list of alternate home agents for redundancy support, and where the subscriber unit can receive an advertisement to be aware of another home agent in addition to the primary home agent that is pre-assigned to the subscriber unit as evidenced by the fact that one of ordinary skill in the art would clearly recognize (see pg. 3, [0036, lines 9-12; 0039, lines 3-4]),

wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents (see pgs. 2-3, [0023-0026, 0028]; pg. 4, [0055-0057]; pg. 5, [0060-0062]), wherein the subscriber unit is statically configured to a primary home agent for registration and in case of failure, the network provides a list of secondary home agents through which the subscriber unit may register, or in an alternate embodiment the list is statically configured as well as in the subscriber unit if no modifications are made in the system/network mobility agents;

attempting the first registration with the primary home agent (see pg. 3, [0036, 0040];
Fig. 1), where the subscriber unit is statically configured to attempt registration with a given
#1 home agent (HA1);

failing to achieve registration with the primary home agent (see pg. 3, [0036, 0040]; pg.
4, [0044]; pg. 6, [0081]), where the subscriber unit is statically configured to attempt
registration with a given #1 home agent (HA1);

the subscriber unit selecting a secondary home agent from the plurality of secondary
home agents in an attempt to balance load among the plurality of secondary home agents (see
pg. 3, [0040]), where the mobile node attempting registration with a primary home agent
(HA1), subsequently the network attempting to balance the load between different or
secondary home agents, and through the network selecting or choosing a home agent having
a lower load; and

attempting registration with the secondary home agent (see pg. 3, [0040]; pg. 5, [0063-
0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts registration
with a secondary home agent due to failure when attempting registration with a primary
home agent. Ton does not specifically disclose having the feature(s) storing addresses for a
plurality of home agents in the subscriber unit prior to a first registration attempt. However,
the examiner maintains that the feature(s) storing addresses for a plurality of home agents in
the subscriber unit prior to a first registration attempt was well known in the art, as taught by
Perkins.

In the same field of endeavor, Perkins discloses the feature(s) storing addresses for a
plurality of home agents in the subscriber unit prior to a first registration attempt (see pgs.

34-35, section 3.6), where a mobile node (subscriber unit) in a mobile IP communication

system can be configured to store IP addresses of one or more home agents (i.e., primary and

secondary home agents) for discovering and registration in the system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton and Perkins to have the feature(s)

storing addresses for a plurality of home agents in the subscriber unit prior to a first

registration attempt, in order to efficiently achieving registration, as taught by Perkins.

Regarding **claim 7**, Ton discloses every limitation claimed as applied above in claim

1. Ton does not specifically disclose having the feature wherein the plurality of addresses for

the home agents stored in the subscriber unit is programmed by a service provider prior to

delivering the subscriber unit to its subscriber. However, the examiner maintains that the

feature wherein the plurality of addresses for the home agents stored in the subscriber unit is

programmed by a service provider prior to delivering the subscriber unit to its subscriber was

well known in the art, as taught by Perkins.

In the same field of endeavor, Perkins clearly discloses having the feature wherein the

plurality of addresses for the home agents stored in the subscriber unit is programmed by a

service provider prior to delivering the subscriber unit to its subscriber (see pgs. 34-35,

section 3.6), where a mobile node is configured with IP addresses.

Therefore, it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to combine the teachings of Ton and Perkins to have the feature

wherein the plurality of addresses for the home agents stored in the subscriber unit is

programmed by a service provider prior to delivering the subscriber unit to its subscriber, as

taught by Perkins, in the method disclosed by Ton for the purpose of efficiently achieving

registration.

Regarding **claim 8**, the combination of Ton and Perkins discloses every limitation

claimed, as applied above (see claim 1), in addition Ton further discloses the method of

claim 1, wherein the plurality of addresses for the home agents stored in the subscriber unit is

programmed by the service provider using over the air access (see pg. 4, [0055-0057]; pg. 5,

[0060-0062]), wherein in case of failure attempting registration with a primary home agent,

the network which is incorporated in a wireless or cellular system delivers mobile IP replies

to the subscriber unit in a wireless fashion so that the subscriber unit can select from a list of

alternate home agents for attempting registration.

Regarding **claim 9**, the combination of Ton and Perkins discloses every limitation

claimed, as applied above (see claim 1), in addition Ton further discloses the method of

claim 1, wherein at least some of the plurality of addresses for the home agents stored in the

subscriber unit is reprogrammed by the service provider using over the air access (se pg. 4,

[0055-0057]; pgs. 5-6, [0060-0062, 0075-0078]), where reprogramming means such as the

service provider or home network incorporated into a wireless or cellular system replying in

a wireless fashion with additional or alternate home agents for the subscriber unit to attempt

registration when failure at attempting registration occurs with a primary home agent.

Regarding **claim 15**, Ton discloses a subscriber unit that operates within a cellular

system, the subscriber unit comprising:

an antenna (see pg. 1, [0002-0003]), where a mobile terminal that comprises the RF

features such as an antenna, a radio frequency, and a digital processor;

a radio frequency unit coupled to the antenna (see pg. 1, [0002-0003]), where a mobile

terminal that comprises the RF features such as an antenna, a radio frequency, and a digital

processor; and

at least one digital processor coupled to the radio frequency unit that executes software

instructions (see pg. 1, [0002-0003]), where a mobile terminal that comprises the RF features

such as an antenna, a radio frequency, and a digital processor,

causing the subscriber unit to:

store addresses for a plurality of home agents in the subscriber unit prior to a first

registration attempt (see pgs. 2-3, [0023, 0028]; pg. 5, [0060-0062]), wherein the cellular

system/network provides a list of home agents attached to a mobile IP reply message (Mobile

IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit

stores said list of alternate home agents for redundancy support, in which that redundancy

support could be handled on a software redundancy implementation, and where the

subscriber unit can receive an advertisement to be aware of another home agent in addition to

the primary home agent that is pre-assigned to the subscriber unit as evidenced by the fact

that one of ordinary skill in the art would clearly recognize (see pg. 3, [0036, lines 9-12;

0039, lines 3-4]),

wherein the plurality of home agents includes a primary home agent and a plurality of

secondary home agents (see pgs. 2-3, [0023-0026, 0028]; pg. 4, [0055-0057]; pg. 5, [0060-

0062]), wherein the subscriber unit is statically configured to a primary home agent for

registration and in case of failure, the network provides a list of secondary home agents

through which the subscriber unit may register, or in an alternate embodiment the list is

statically configured as well as in the subscriber unit if no modifications are made in the

system/network mobility agents;

attempt the first registration with the primary home agent (see pg. 3, [0036, 0040]; pg. 4,

[0044]; pg. 6, [0081]), where the subscriber unit is statically configured to attempt

registration with a given #1 home agent (HA1);

failing to achieve registration with the primary home agent (see pg. 3, [0038-0039]; Fig.

1 "steps 120-140"), wherein the request for registration of the subscriber unit is not

completed due to failure of the primary home agent;

select a secondary home agent from the plurality of secondary home agents in an attempt

to balance load among the plurality of secondary home agents (see pg. 3, [0040]), where the

mobile node attempting registration with a primary home agent (HA1), subsequently the

network attempting to balance the load between different or secondary home agents, and

through the network selecting or choosing a home agent having a lower load; and

attempt registration with the secondary home agent (see pg. 3, [0040]; pg. 5, [0063-

0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts registration

with a secondary home agent due to failure when attempting registration with a primary

home agent. Ton does not specifically disclose having the feature(s) store addresses for a

plurality of home agents in the subscriber unit prior to a first registration attempt. However,

the examiner maintains that the feature(s) store addresses for a plurality of home agents in

the subscriber unit prior to a first registration attempt was well known in the art, as taught by

Perkins.

In the same field of endeavor, Perkins discloses the feature(s) store addresses for a plurality of home agents in the subscriber unit prior to a first registration attempt (see pgs. 34-35, section 3.6), where a mobile node (subscriber unit) in a mobile IP communication system can be configured to store IP addresses of one or more home agents (i.e., primary and secondary home agents) for discovering and registration in the system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton and Perkins to have the feature(s) store addresses for a plurality of home agents in the subscriber unit prior to a first registration attempt, in order to efficiently achieving registration, as taught by Perkins.

Regarding **claim 21**, Ton discloses every limitation claimed as applied above in claim 15. Ton does not specifically disclose having the feature wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber. However, the examiner maintains that the feature wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber was well known in the art, as taught by Perkins.

In the same field of endeavor, Perkins clearly discloses having the feature wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber (see pgs. 34-35, section 3.6), where a mobile node is configured with IP addresses.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Ton and Perkins to have the feature

wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by a service provider prior to delivering the subscriber unit to its subscriber, as taught by Perkins, in the method disclosed by Ton for the purpose of efficiently achieving registration.

Regarding **claim 22**, the combination of Ton and Perkins discloses every limitation claimed, as applied above (see claim 15), in addition Ton further discloses the method of claim 15, wherein the plurality of addresses for the home agents stored in the subscriber unit is programmed by the service provider using over the air access (see pg. 4, [0055-0057]; pg. 5, [0060-0062]), wherein in case of failure attempting registration with a primary home agent, the network which is incorporated in a wireless or cellular system delivers mobile IP replies to the subscriber unit in a wireless fashion so that the subscriber unit can select from a list of alternate home agents for attempting registration.

Regarding **claim 23**, the combination of Ton and Perkins discloses every limitation claimed, as applied above (see claim 15), in addition Ton further discloses the method of claim 15, wherein at least some of the plurality of addresses for the home agents stored in the subscriber unit is reprogrammed by the service provider using over the air access (se pg. 4, [0055-0057]; pgs. 5-6, [0060-0062, 0075-0078]), where reprogramming means such as the service provider or home network incorporated into a wireless or cellular system replying in a wireless fashion with additional or alternate home agents for the subscriber unit to attempt registration when failure at attempting registration occurs with a primary home agent.

Claims 2-3, **10-11**, and **16-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ton (US 2002/0067704 A1) in view of **Perkins ("IP Mobility Support")** as applied to

claims 1 and 15 above, and further in view of **Troxel et al**. (hereinafter Troxel) (**US**

2002/0078238 A1).

  Regarding **claim 2**, the combination of Ton and Perkins discloses every limitation

claimed, as applied above (see claim 1), in addition Ton further discloses the method of

claim l, further comprises:

 the subscriber unit rank ordering the plurality of secondary home agents into at least a

first secondary home agent and a second secondary home agent (see pg. 6, [0082]), wherein

the plurality of secondary home agents are ranked, so when one registration attempt fails

with the current home agent, the next secondary home agent becomes the new primary home

agent changing its rank to 1. The combination of Ton and Perkins does not specifically

disclose having the feature the subscriber unit rank ordering the plurality of home agents.

However, the examiner maintains that the feature the subscriber unit rank ordering the

plurality of home agents was well known in the art, as taught by Troxel.

  In the same field of endeavor, Troxel discloses the feature the subscriber unit rank

ordering the plurality of home agents (see pg. 4, [0051]), wherein a mobile node ranks

foreign agents based on several factors such as services and capacity.

  Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton, Perkins, and Troxel to have the

feature the subscriber unit rank ordering the plurality of home agents, in order to relay and

assist network management decision procedures, thus setting up a faster registration for a

particular subscriber, as taught by Troxel.

Regarding **claim 3**, the combination of Ton, Perkins, and Troxel discloses every

limitation claimed, as applied above (see claim 2), in addition Ton further discloses the

method of claim 2, further comprising:

attempting registration with the first secondary home agent (see pg. 3, [0036, 0040]; pg.

4, [0044]; pg. 6, [0081]), wherein the subscriber unit attempts registration with an alternate or

first secondary home agent (HA2);

failing to achieve registration with the first secondary home agent (see pg. 3, [0040]; pg.

5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts

registration with a secondary home agent due to failure when attempting registration with a

previous home agent; and

attempting registration with the second secondary home agent (see pg. 3, [0036, 0040];

pg. 5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the objective of the invention is to

provide alternate home agents in case of failure when attempting registration with a current

home agent, subsequently attempting registration if such consecutive failure occurs during

the process, therefore the subscriber unit selects and attempts registration with a second

secondary home agent due to failure when attempting registration with a previous home

agent.

Regarding **claim 10**, Ton discloses a method for registering a subscriber unit with a

home agent in a cellular system (see pg. 2, [0019]; Figs. 2-5), where a cellular system

incorporating data communications packet switched networks and that deploys several home

agents and a subscriber unit or mobile node, the method comprising:

storing addresses for a plurality of home agents in the subscriber unit prior to a first

registration attempt (see pgs. 2-3, [0023, 0028]; pg. 5, [0060-0062]), wherein the cellular

system/network provides a list of home agents attached to a mobile IP reply message (Mobile

IP RRP) through which the subscriber unit may register, and subsequently the subscriber unit

stores said list of alternate home agents for redundancy support, in which that redundancy

support, and where the subscriber unit can receive an advertisement to be aware of another

home agent in addition to the primary home agent that is pre-assigned to the subscriber unit

as evidenced by the fact that one of ordinary skill in the art would clearly recognize (see pg.

3, [0036, lines 9-12; 0039, lines 3-4]),

wherein the plurality of home agents includes a primary home agent and a plurality of

secondary home agents (see pgs. 2-3, [0023-0026, 0028]; pg. 4, [0055-0057]; pg. 5, [0060-

0062]), wherein the subscriber unit is statically configured to a primary home agent for

registration and in case of failure, the network provides a list of secondary home agents

through which the subscriber unit may register, or in an alternate embodiment the list is

statically configured as well as in the subscriber unit if no modifications are made in the

system/network mobility agents;

attempting the first registration with the primary home agent (see pg. 3, [0036, 0040]; pg.

4, [0044]; pg. 6, [0081]), where the subscriber unit is statically configured to attempt

registration with a given #1 home agent (HA1);

failing to achieve registration with the primary home agent (see pg. 3, [0038-0039]; Fig.

1 "steps 120-140"), wherein the request for registration of the subscriber unit is not

completed due to failure of the primary home agent;

rank ordering the plurality of secondary home agents into at least a first secondary home

agent and a second secondary home agent (see pg. 6, [0082]), wherein the plurality of

secondary home agents are ranked, so when one registration attempt fails with the current

home agent, the next secondary home agent becomes the new primary home agent changing

its rank to 1,

in an attempt to balance load among the plurality of secondary home agents (see pg. 3,

[0040]), where mobile node attempting registration with a primary home agent (HA1),

subsequently the network attempting to balanced the load between different or secondary

home agents, and through the network selecting or choosing a home agent having a lower

load; and

attempting registration with the first secondary home agent (see pg. 3, [0040]; pg. 5,

[0063-0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts

registration with a secondary home agent due to failure when attempting registration with a

previous home agent. Ton does not specifically disclose having the feature(s) storing

addresses for a plurality of home agents in the subscriber unit prior to a first registration

attempt. However, the examiner maintains that the feature(s) storing addresses for a plurality

of home agents in the subscriber unit prior to a first registration attempt was well known in

the art, as taught by Perkins.

In the same field of endeavor, Perkins discloses the feature(s) storing addresses for a

plurality of home agents in the subscriber unit prior to a first registration attempt (see pgs.

34-35, section 3.6), where a mobile node (subscriber unit) in a mobile IP communication

system can be configured to store IP addresses of one or more home agents (i.e., primary and

secondary home agents) for discovering and registration in the system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton and Perkins to have the feature(s)

storing addresses for a plurality of home agents in the subscriber unit prior to a first

registration attempt, in order to efficiently achieving registration, as taught by Perkins. The

combination of Ton and Perkins does not specifically disclose having the feature the

subscriber unit rank ordering the plurality of home agents. However, the examiner maintains

that the feature the subscriber unit rank ordering the plurality of home agents was well

known in the art, as taught by Troxel.

In the same field of endeavor, Troxel discloses the feature the subscriber unit rank

ordering the plurality of home agents (see pg. 4, [0051]), wherein a mobile node ranks

foreign agents based on several factors such as services and capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton, Perkins, and Troxel to have the

feature the subscriber unit rank ordering the plurality of home agents, in order to relay and

assist network management decision procedures, thus setting up a faster registration for a

particular subscriber, as taught by Troxel.

Regarding **claim 11**, the combination of Ton, Perkins, and Troxel discloses every

limitation claimed, as applied above (see claim 10), in addition Ton further discloses the

method of claim 10, further comprising:

failing to achieve registration with the first secondary home agent (see pg. 3, [0040]; pg.

5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts

registration with a secondary home agent due to failure when attempting registration with a

previous home agent; and

attempting registration with the second secondary home agent (see pg. 3, [0036, 0040];

pg. 5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the objective of the invention is to

provide alternate home agents in case of failure when attempting registration with a current

home agent, subsequently attempting registration if such consecutive failure occurs during

the process, therefore the subscriber unit selects and attempts registration with a second

secondary home agent due to failure when attempting registration with a previous home

agent.

Regarding **claim 16**, the combination of Ton and Perkins discloses every limitation

claimed, as applied above (see claim 15), in addition Ton further discloses the subscriber unit

of claim 15, wherein execution of the software instructions further causes the subscriber unit

to:

rank ordering the plurality of secondary home agents into at least a first secondary home

agent and a second secondary home agent (see pg. 6, [0082]), wherein the plurality of

secondary home agents are ranked, so when one registration attempt fails with the current

home agent, the next secondary home agent becomes the new primary home agent changing

its rank to 1. The combination of Ton and Perkins does not specifically disclose having the

feature the subscriber unit rank ordering the plurality of home agents. However, the

examiner maintains that the feature the subscriber unit rank ordering the plurality of home

agents was well known in the art, as taught by Troxel.

In the same field of endeavor, Troxel discloses the feature the subscriber unit rank

ordering the plurality of home agents (see pg. 4, [0051]), wherein a mobile node ranks

foreign agents based on several factors such as services and capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton, Perkins, and Troxel to have the

feature the subscriber unit rank ordering the plurality of home agents, in order to relay and

assist network management decision procedures, thus setting up a faster registration for a

particular subscriber, as taught by Troxel.

Regarding **claim 17**, the combination of Ton, Perkins, and Troxel discloses every

limitation claimed, as applied above (see claim 16), in addition Ton further discloses the

subscriber unit of claim 16, wherein execution of the software instructions further causes the

subscriber unit to:

attempting registration with the first secondary home agent (see pg. 3, [0036, 0040]; pg.

4, [0044]; pg. 6, [0081]), wherein the subscriber unit attempts registration with an alternate or

first secondary home agent (HA2);

failing to achieve registration with the first secondary home agent (see pg. 3, [0040]; pg.

5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the subscriber unit selects and attempts

registration with a secondary home agent due to failure when attempting registration with a

previous home agent; and

attempting registration with the second secondary home agent (see pg. 3, [0036, 0040];

pg. 5, [0063-0064]; Fig. 1 "steps 150-180"), wherein the objective of the invention is to

provide alternate home agents in case of failure when attempting registration with a current

home agent, subsequently attempting registration if such consecutive failure occurs during

the process, therefore the subscriber unit selects and attempts registration with a second

secondary home agent due to failure when attempting registration with a previous home

agent.

Claims 4 and **12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (US**

2002/0067704 A1) in view of **Perkins ("IP Mobility Support")** and further in view of

Troxel et al. (hereinafter Troxel) (**US 2002/0078238 A1**) as applied to claims 2 and 10

above, and further in view of **Jue et al**. (hereinafter Jue) ("**Design and Analysis of a**

Replicated Server Architecture for Supporting IP Host Mobility") and **Tiedemann et al**.

(hereinafter Tiedemann) (**US 6,615,050 B1**).

Regarding **claim 4**, the combination of Ton, Perkins, and Troxel discloses every

limitation claimed as applied above in claim 2. The combination of Ton, Perkins, and Troxel

does not specifically disclose having the features the subscriber unit generating a random

number; and the subscriber unit using the random number to rank order the plurality of

secondary home agents. However, the examiner maintains that the features generating a

random number; and using the random number to rank order the plurality of secondary home

agents was well known in the art, as taught by Jue.

In the same field of endeavor, Jue discloses the features generating a random number;

and using the random number to rank order the plurality of secondary home agents (see pg.

20, cols. 1-2; pg. 21, col. 2; pg. 22, col. 1; pg. 23, col. 1), where a method for randomly

selecting home agents for achieving higher load gains.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton, Perkins, Troxel, and Jue to have the

features generating a random number; and the subscriber unit using the random number to

rank order the plurality of secondary home agents, in order to improve performance when

balancing load between home agents during high or irregular traffic volume rate, as taught by

Jue. The combination of Ton, Perkins, Troxel, and Jue does not specifically disclose having

the feature the subscriber unit generating a random number. However, the examiner

maintains that the feature the subscriber unit generating a random number was well known in

the art, as taught by Tiedemann.

In the same field of endeavor, Tiedemann discloses the feature the subscriber unit

generating a random number (see col. 4, lines 46-62), wherein a mobile station generates a

random number.

Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Ton, Perkins, Troxel, Jue, and

Tiedemann to have the feature the subscriber unit generating a random number, in order to

delay information broadcast at random intervals, thus avoiding collision, as taught by Tiedemann.

Regarding **claim 12**, the combination of Ton, Perkins, and Troxel discloses every limitation claimed as applied above in claim 10. The combination of Ton, Perkins, and Troxel does not specifically disclose having the features the subscriber unit generating a random number; and the subscriber unit using the random number to rank order the plurality of secondary home agents. However, the examiner maintains that the features generating a random number; and using the random number to rank order the plurality of secondary home agents was well known in the art, as taught by Jue.

In the same field of endeavor, Jue discloses the features generating a random number; and using the random number to rank order the plurality of secondary home agents (see pg. 20, cols. 1-2; pg. 21, col. 2; pg. 22, col. 1; pg. 23, col. 1), where a method for randomly selecting home agents for achieving higher load gains.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins, Troxel, and Jue to have the features generating a random number; and the subscriber unit using the random number to rank order the plurality of secondary home agents, in order to improve performance when balancing load between home agents during high or irregular traffic volume rate, as taught by Jue. The combination of Ton, Perkins, Troxel, and Jue does not specifically disclose having the feature the subscriber unit generating a random number. However, the examiner maintains that the feature the subscriber unit generating a random number was well known in the art, as taught by Tiedemann.

In the same field of endeavor, Tiedemann discloses the feature the subscriber unit generating a random number (see col. 4, lines 46-62), wherein a mobile station generates a random number.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins, Troxel, Jue, and Tiedemann to have the feature the subscriber unit generating a random number, in order to delay information broadcast at random intervals, thus avoiding collision, as taught by Tiedemann.

Claims 5-6 and **13-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton** (**US 2002/0067704 A1**) in view of **Perkins** (hereinafter Perkins A) (“**IP Mobility Support”**) and further in view of **Troxel et al**. (hereinafter Troxel) (**US 2002/0078238 A1**) as applied to claims 2 and 10 above, and further in view of **Perkins** (hereinafter Perkins B) (“**Mobile Networking Through Mobile IP”**) and **Fehnel** (**US 5,590,092**).

Regarding **claims 5** and **6**, the combination of Ton, Perkins (A), and Troxel discloses every limitation claimed as applied above in claim 2. The combination of Ton, Perkins (A), and Troxel does not specifically disclose having the features the subscriber unit determining a current date; and the subscriber unit using the current date to rank order the plurality of secondary home agents. However, the examiner maintains that the features determining a current date; and using the current date to rank order the plurality of secondary home agents was well known in the art, as taught by Perkins (B).

In the same field of endeavor, Perkins (B) discloses the features determining a current date; and using the current date to rank order the plurality of secondary home agents (see pg. 62, col. 2 - pg. 63, col. 1), wherein the network employs unique identification fields using timestamps when a subscriber unit is requesting registration with a home agent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins (A), Troxel, and Perkins (B) to have the features determining a current date; and using the current date to rank order the plurality of secondary home agents, in order to secure registration requests by differing each registration from another, as taught by Perkins (B).

The combination of Ton, Perkins (A), Troxel, and Perkins (B) does not specifically disclose having the feature the subscriber unit generating a current date or time. However, the examiner maintains that the feature the subscriber unit generating a current date or time was well known in the art, as taught by Fehnel.

In the same field of endeavor, Fehnel discloses the feature the subscriber unit generating a current date or time (see col. 3, lines 26-39), where a cellular radiotelephone comprises means for generating a current time of day.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins (A), Troxel, Perkins (B), and Fehnel to have the feature the subscriber unit generating a current date or time, in order to generate time without the addition of a real time clock chip in the subscriber unit, as taught by Fehnel.

Regarding **claims 13** and **14**, the combination of Ton, Perkins (A), and Troxel discloses every limitation claimed as applied above in claim 10. The combination of Ton, Perkins (A), and Troxel does not specifically disclose having the features the subscriber unit determining a current date; and the subscriber unit using the current date to rank order the plurality of secondary home agents.

However, the examiner maintains that the features determining a current date; and using the current date to rank order the plurality of secondary home agents was well known in the art, as taught by Perkins (B).

In the same field of endeavor, Perkins (B) discloses the features determining a current date; and using the current date to rank order the plurality of secondary home agents (see pg. 62, col. 2 - pg. 63, col. 1), wherein the network employs unique identification fields using timestamps when a subscriber unit is requesting registration with a home agent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins (A), Troxel, and Perkins (B) to have the features determining a current date; and using the current date to rank order the plurality of secondary home agents, in order to secure registration requests by differing each registration from another, as taught by Perkins (B).

The combination of Ton, Perkins (A), Troxel, and Perkins (B) does not specifically disclose having the feature the subscriber unit generating a current date or time. However, the examiner maintains that the feature the subscriber unit generating a current date or time was well known in the art, as taught by Fehnel.

In the same field of endeavor, Fehnel discloses the feature the subscriber unit generating a current date or time (see col. 3, lines 26-39), where a cellular radiotelephone comprises means for generating a current time of day.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins (A), Troxel, Perkins (B), and Fehnel to have the feature the subscriber unit generating a current date or time, in order to generate time without the addition of a real time clock chip in the subscriber unit, as taught by Fehnel.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (US 2002/0067704 A1)** in view of **Perkins ("IP Mobility Support")** and further in view of **Troxel et al**. (hereinafter Troxel) **(US 2002/0078238 A1)** as applied to claim 17 above, and further in view of **Jue et al**. (hereinafter Jue) (**"Design and Analysis of a Replicated Server Architecture for Supporting IP Host Mobility"**).

Regarding **claim 18**, the combination of Ton, Perkins, and Troxel discloses every limitation claimed as applied above in claim 17. The combination of Ton, Perkins, and Troxel does not specifically disclose having the features generate a random number; and use the random number to rank order the plurality of secondary home agents. However, the examiner maintains that the features generate a random number; and use the random number to rank order the plurality of secondary home agents was well known in the art, as taught by Jue.

In the same field of endeavor, Jue discloses the features generate a random number; and use the random number to rank order the plurality of secondary home agents (see pg. 20, cols. 1-2; pg. 21, col. 2; pg. 22, col. 1; pg. 23, col. 1), where a method for randomly selecting home agents for achieving higher load gains.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins, Troxel, and Jue to have the features generate a random number; and use the random number to rank order the plurality of secondary home agents, in order to improve performance when balancing load between home agents during high or irregular traffic volume rate, as taught by Jue.

Claims 19 and **20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ton (US 2002/0067704 A1**) in view of **Perkins** (hereinafter Perkins A) ("**IP Mobility Support"**) and further in view of **Troxel et al**. (hereinafter Troxel) (**US 2002/0078238 A1**) as applied to claim 17 above, and further in view of **Perkins** (hereinafter Perkins B) ("**Mobile Networking Through Mobile IP"**).

Regarding **claims 19** and **20**, the combination of Ton, Perkins (A), and Troxel discloses every limitation claimed as applied above in claim 17. The combination of Ton, Perkins (A), and Troxel does not specifically disclose having the features the subscriber unit determining a current date; and the subscriber unit using the current date to rank order the plurality of secondary home agents. However, the examiner maintains that the features determining a current date; and using the current date to rank order the plurality of secondary home agents was well known in the art, as taught by Perkins (B).

In the same field of endeavor, Perkins (B) discloses the features determining a current date; and using the current date to rank order the plurality of secondary home agents (see pg. 62, col. 2 - pg. 63, col. 1), wherein the network employs unique identification fields using timestamps when a subscriber unit is requesting registration with a home agent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ton, Perkins (A), Troxel, and Perkins (B) to have the features determining a current date; and using the current date to rank order the plurality of secondary home agents, in order to secure registration requests by differing each registration from another, as taught by Perkins (B).

Response to Arguments

4.   Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amended language and/or new limitations.

In response to applicant's arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIE J. DANIEL JR whose telephone number is (571)272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access

to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free). If you would like assistance from a USPTO Customer Service Representative or

access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or

571-272-1000.

/WJD,Jr/

WJD,Jr
12 February 2009

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617